UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

23373 7590

09/08/2009

SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037 EXAMINER
PATEL, AJIT
ART UNIT PAPER NUMBER

2617 DATE MAILED: 09/08/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582.369	06/09/2006	Junichi Matsuda	O95408	2817

TITLE OF INVENTION: TRANSMISSION TIME DIFFERENCE MEASUREMENT METHOD AND SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/08/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where ar in m

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth	ng the Patent, advance onerwise in Block 1, by (	rders and notification of r a) specifying a new corres	naintenance fees v pondence address	vill be ; and/o	mailed to the current (b) indicating a sepa	correspondence address as trate "FEE ADDRESS" for	
	ENCE ADDRESS (Note: Use Bl	Feet pape	s) Transmittal. Thers. Each additiona	is certii I papei	icate cannot be used f	r domestic mailings of the or any other accompanying nt or formal drawing, must		
23373	7590 09/08	/2009	nav			Ü		
SUITE 800	LVANIA AVENUE	I he Stat addı tran	reby certify that the	is Fee(	e of Mailing or Transus, Transmittal is being ficient postage for firs ISSUE FEE address 1) 273-2885, on the definition of the definition	inission (g deposited with the United to class mail in an envelope above, or being facsimile ate indicated below.		
WASHINGTON	N, DC 20037						(Depositor's name)	
							(Signature)	
							(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTC	RNEY DOCKET NO.	CONFIRMATION NO.	
10/582,369	06/09/2006	•	Junichi Matsuda	Q9540		Q95408	2817	
TITLE OF INVENTION	: TRANSMISSION TIM	IE DIFFERENCE MEAS	UREMENT METHOD AT	ND SYSTEM				
			_					
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1510	\$300	\$0		\$1810	12/08/2009	
EXAM	IINER	ART UNIT	CLASS-SUBCLASS					
PATEI	L, AJIT	2617	455-456100					
1. Change of correspond CFR 1.363).	ence address or indicatio	n of "Fee Address" (37	2. For printing on the patent front page, list					
Change of corresp	oondence address (or Cha B/122) attached.	nge of Correspondence	registered attorney or agent) and the names of up to					
	lication (or "Fee Address							
PTO/SB/47; Rev 03-0 Number is required.	02 or more recent) attach	ed. Use of a Customer	2 registered patent attorneys or agents. If no name is listed, no name will be printed.					
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	I THE PATENT (print or typ	pe)				
PLEASE NOTE: Un	less an assignee is ident	ified below, no assignee	data will appear on the p T a substitute for filing an	atent. If an assign	ee is id	lentified below, the de	ocument has been filed for	
(A) NAME OF ASSI	•	bleuon of this form is NO	(B) RESIDENCE: (CITY		COUNT	RY)		
(12) 1 1 2 1 2 1 1 2 2 1 1 2 2 2 2 2 2 2			(2)1232221(21)			,		
			_	_			_	
Please check the appropr	riate assignee category or	categories (will not be pr	rinted on the patent): $\Box$	Individual 🖵 C	orporat	on or other private gro	oup entity 🖵 Government	
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): ( <b>Ple</b> a	se first reapply a	ny prev	iously paid issue fee	shown above)	
Issue Fee			A check is enclosed.					
☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies			☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					
			overpayment, to Depo	sit Account Numb	er	(enclose a	n extra copy of this form).	
5. Change in Entity Sta	tus (from status indicated as SMALL ENTITY state	· · · · · · · · · · · · · · · · · · ·	☐ b. Applicant is no lon	var claiming SMA	I I ENT	FITV status, See 27 CI	ED 1.27(α)(2)	
NOTE: The Issue Fee an	d Publication Fee (if req	uired) will not be accepte	d from anyone other than t				e assignee or other party in	
interest as shown by the	records of the United Sta	tes Patent and Trademark	COffice.					
Authorized Signature				Date				
Typed or printed name				Registration N	lo			
This collection of inform	nation is required by 37 C	FR 1.311. The information	on is required to obtain or i	etain a benefit by t	he pub	lic which is to file (and	by the USPTO to process)	
an application. Confiden submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 223	tiality is governed by 35 dapplication form to the ions for reducing this bu. Virginia 22313-1450. DC	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the NOT SEND FEES OR	1.14. This collection is esty depending upon the indiverse Chief Information Office COMPLETED FORMS TO	imated to take 12 idual case. Any co r, U.S. Patent and D THIS ADDRESS	minute: ommen Trader S. SEN	s to complete, including s on the amount of tir nark Office, U.S. Depa D TO: Commissioner	g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,	

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/582,369	06/09/2006	Junichi Matsuda	Q95408 2817		
23373 75	90 09/08/2009		EXAMINER		
SUGHRUE MIO	N, PLLC	PATEI	., AJIT		
	ANIA AVENUE, N.W	ART UNIT	PAPER NUMBER		
SUITE 800 WASHINGTON, I	DC 20037		2617 DATE MAILED: 09/08/2009		

### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 760 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 760 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)	
	10/582,369	MATSUDA ET AL.	
Notice of Allowability	Examiner	Art Unit	
	A IIT DATEI	2617	
	AJIT PATEL	2617	
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT F of the Office or upon petition by the applicant. See 37 CFR 1.31	S (OR REMAINS) CLOSED i) or other appropriate comm RIGHTS. This application is	in this application. If not included nunication will be mailed in due course	
1. This communication is responsive to <u>6/9/06</u> .			
2. ☑ The allowed claim(s) is/are <u>1-42</u> .			
<ul> <li>3.  Acknowledgment is made of a claim for foreign priority to a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> </ul>		) or (f).	
2.   Certified copies of the priority documents have	e been received in Applica	ion No	
3. Copies of the certified copies of the priority do	ocuments have been receiv	ed in this national stage application fro	m the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE noted below. Failure to timely comply will result in ABANDON THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		le a reply complying with the requireme	ents
4. A SUBSTITUTE OATH OR DECLARATION must be subr INFORMAL PATENT APPLICATION (PTO-152) which give			OF
5. CORRECTED DRAWINGS ( as "replacement sheets") mu	ıst be submitted.		
(a) 🔲 including changes required by the Notice of Draftsper	rson's Patent Drawing Revi	ew ( PTO-948) attached	
1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date	<u>_</u> .		
<ul><li>(b) ☐ including changes required by the attached Examiner Paper No./Mail Date</li></ul>	's Amendment / Comment	or in the Office action of	
Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in			of
<ol> <li>DEPOSIT OF and/or INFORMATION about the depo- attached Examiner's comment regarding REQUIREMENT</li> </ol>			е
Attachment(s) 1. ☑ Notice of References Cited (PTO-892)	5. ☐ Notice of	Informal Patent Application	
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)	6. 🔲 Interview	Summary (PTO-413),	
3. ☑ Information Disclosure Statements (PTO/SB/08),	Paper No 7.	o./Mail Dates S Amendment/Comment	
Paper No./Mail Date4.  Examiner's Comment Regarding Requirement for Deposit	8. 🛛 Examiner	s Statement of Reasons for Allowance	!
of Biological Material	9.	<u></u> .	
/AJIT PATEL/			
Primary Examiner, Art Unit 2617			

Application/Control Number: 10/582,369

Art Unit: 2617

1. The following is an examiner's statement of reasons for allowance: The prior art of the record fails to disclose the control device finds the difference in transmission times of signals in each of said base stations based on: the difference of propagation times between said terminal and each of said base stations that is calculated by subtracting the turn-around time that is measured in said terminal from the round trip time that is measured in each of said base stations, and the arrival time difference that is measured in said terminal; and uses a storage function to store the calculated transmission time differences in association with the calculation times at which the transmission time differences were calculated in combination of other limitation recited in claims 1 and 24; said control device calculates the distances between said terminal and of said base stations based on the geographical location of said terminal and the geographical locations of each of said base stations that have been measured by said terminal, finds the transmission time differences of each of said base stations based on the propagation time differences that are calculated by dividing the differences between the calculated distances by the speed of light and the arrival time differences that are measured at said terminal, and uses the storage function to store the transmission time differences that have been calculated in associated with the calculation time at which the transmission time differences were calculated in combination of other limitations recited in claims 18 and 41.

Page 2

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably Application/Control Number: 10/582,369 Page 3

Art Unit: 2617

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AJIT PATEL whose telephone number is (571)272-3140. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PAUL HARPER can be reached on 571-272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AJIT PATEL/ Primary Examiner, Art Unit 2617